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# FOOD SAFETY STANDARDS HACCP & EUREPGAP

KOSOVO CLUSTER AND BUSINESS SUPPORT PROJECT



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# FOOD SAFETY STANDARDS

## HACCP & EUREPGAP

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Kosovo Cluster and Business Support project - Food Safety Standards, HACCP and EurepGap  
Contract No. AFP-I-00-03-00030-00, TO #800

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## PURPOSE OF ASSIGNMENT

The purpose of this assignment is to work with Kosovo's food processing companies to identify HACCP priorities, and to construct an implementation plan to address outstanding HACCP violations in a two-year plan towards HACCP certification. In addition to this primary aim a secondary objective of the assignment is to disseminate general HACCP standards and emphasize the importance of bringing facilities up to HACCP standard to allow access to EU markets.

## BACKGROUND

The processing sector in Kosovo is seeking to rapidly achieve full capacity in its production. The current equipment in Kosovo is often antiquated and the facilities have deteriorated. At the same time, Kosovo is facing challenges in accessing foreign markets and reestablishing the market linkages that were destroyed during its recent conflicts. Time is of the essence in creating value-added products driven by demand that illustrate the ability of Kosovo to be a viable commercial entity, and to forge an integrated production system. The absence of HACCP certified processing enterprises is a clear constraint to the quality of products that originate in Kosovo and to the ability of Kosovo companies to access markets.

With these factors in mind, KCBS engaged a consultant with experience in HACCP certification and implementation to evaluate older Balkan equipment and infrastructure and suggest a series of improvements, and to prioritize critical bottlenecks in HACCP certification across interested processing enterprises. This assistance also involved training seminars to disseminate a general knowledge on the tenets of HACCP, the importance of their implementation, and guidance on how to create an implementation plan for HACCP certification.

# EXECUTIVE SUMMARY

Assessment visits were carried out at three prospective clients:

- AGROPRODUCT COMMERCE (mushrooms processor),
- PESTOVA (potato producer and processor)
- AGROPRODUCT-SYNE

Two clients, Agroproduct Commerce and Pestova, have potential and commitment for the development of GMP and HACCP principles; the EurepGAP Standard would be also suitable for Pestova as fresh potato products are for the export market. Agroproduct-Syne does not have the potential to achieve HACCP standards.

It is recommended that the implementation of food safety standards at Pestova should start as soon as possible, primarily since potatoes are exporting in Romania and the rest of production are used for making potato products. One part of production is for domestic market and other part is for export. It is a matter of time when the importer will require quality standards and if they are not implemented it is possible they will lose the market in Romania.

Agroproduct Commerce is a good facility for chilled, frozen and ambient storage of mushrooms products. All production is exported to EU market. For that reason company must start to implement food safety standards. Some of the processors in Macedonia with the same business have already received HACCP certificate.

Agroproduct-Syne company is new and with a lot of space available. They have to segregate area for receiving, production and packing. Facility has to be improved and all necessary refurbishment has to be undertaken in order to close all holes. Equipment is not made from stainless steel and parts, which are in contact with food, have to be replaced with stainless steel material. All windows have to be laminated. Toilets have to be segregated from production area.

A Seminar for Food Safety was organized by KCBS on behalf of AKA association. The seminar reported on the Macedonia experience in Food Safety Standards implementation in general of HACCP and EurepGAP in particular. Twenty-three people participated at the food safety seminar.

This report includes a recommended program for the implementation of HACCP at two Kosovo processing companies.

# FIELD ACTIVITIES TO ACHIEVE PURPOSES

## **Monday - 03.06.06**

On the first working day schedule of activities was followed for realization of the project. The goal is implementation of food safety standards - HACCP and EurepGAP and to respond to Consumer Concerns of Food Safety. The requirements of the General Principles of Food Hygiene are considered to be the foundation for the development of a HACCP-based system for ensuring food safety. The application of the General Principles of Food Hygiene and of good manufacturing practices (GMPs) allows the producer to operate within environmental conditions favorable to the production of safe food.

Companies can consider the contents of this project and decide how best they should encourage the implementation of these general principles to:

- protect consumers adequately from illness or injury caused by food
- provide assurance that food is suitable for human consumption;
- maintain confidence in internationally traded food; and,
- implement and train the workers for health education programmers which effectively communicate the principles of food hygiene to industry and consumers.

Industry should apply the hygienic practices set out in this project to:

- provide food which is safe and suitable for consumption;
- ensure that consumers have clear and easily understood information, by way of labeling and other appropriate means, to enable them to protect their food from contamination and growth/survival of food borne pathogens by storing, handling and preparing it correctly; and
- maintain confidence in internationally traded food.

Consumers should recognize their role by following relevant instructions and applying appropriate food hygiene measures.

For implementation of the project, the following companies are chosen: AGROPRODUCT Commerce, PESTOVA and AGROPRODUCT- SYNE

It was also agreed that a seminar should be provided to the members of AKA.

## **Tuesday – 03.07.06**

I was working at the office on preparing education materials for HACCP pre-requisites such as: staff facilities, pest control, equipment, production and process control, procedures for cleaning and sanitizing equipment. A checklist was prepared to define current situation and identify improvements, which have to be done in future according to the food safety requirements.

In the afternoon we had a meeting with the owner of Pestova Mr. Bedri Kosumi. We discussed the advantages of HACCP and CODEX ALIMENTARIUS. The HACCP system, as it applies to food safety management, uses the approach of controlling critical points in food handling to prevent food safety problems. The system, which is science based and systematic, identifies specific hazards and measures for their control to ensure the safety of food. HACCP is based on prevention and reduces the reliance on end-product inspection and reduce cost of final product testing.

On the meeting it was agreed that the successful implementation of HACCP requires the full commitment and involvement of management and the workforce. It requires a multidisciplinary approach which should include, as appropriate, expertise in agronomy,

veterinary health, microbiology, public health, food technology, environmental health, chemistry, engineering, etc. according to the particular situation.

### **Wednesday – 03.08.06**

Field visit to two processors:

Agroproduct Komerc.

We had meeting with the owner of the company and we discussed the implementation of food safety standards. The company processes wild mushrooms. Mushrooms are collected by local people and processed in the factory. Most of the products are exported to EU countries. The factory is new. Intake of raw materials has to be improved in order to protect the products from pests. Equipment and working tables for cleaning, sorting and calibration are made from plastic materials and have to be replaced with stainless steel materials. Lighting is not protected from breakage and there is a risk of glass contamination. One part of the received mushrooms is submitted to drying process and there is a possibility of oil contamination to the final products. The changing room is not placed in the processing area and workers will have to go outside with working clothes; similar situation with toilets. No written procedures are provided and there is no evidence of pest control.

Temperature records are established but review showed that the target temperature for the various chambers is not being achieved and no corrective actions were undertaken and noted. Temperature probes are not formally calibrated at the current time.

GMP issues need to be implemented such as:

- Cleaning instructions
- Training for mushrooms collectors
- Formal intake checks
- Hygiene audits
- Planned maintenance
- Traceability
- Calibration
- Pest control
- Glass control e.g. removing the glass if possible or covering or laminating of all glass on site
- Shelf life verification
- Temperature control recording
- Segregation of work wear
- Job descriptions
- Training (food hygiene, HACCP and work instruction)

This company has the potential to achieve HACCP standard. At the end of the meeting Mr. Shadoni agreed to cooperate with KCBS project in HACCP implementation and future activities were agreed.

Pestova Company.

On the previous meeting with Mr. Kosumi we already discussed food safety standards. He was also interested for EurepGAP implementation because part of the potato production is exported to Romania. Implementation of Good Agriculture Practices in addition can help the company to control production of raw materials, traceability, usage of pesticide and fertilizers. During our visit we fulfilled GMP checklist and one copy was given to Mr. Kosumi. Factory is in a very good condition and most of the equipment is new. The processing plant

is built according to the food safety standards. The cleaning procedure has to be changed. Packing areas have to be segregated from processing area.

The requirements and purchasing of metal detector were discussed. The company has an on-site laboratory which is one of the benefits for the control of the production. Pesticide testing by Government laboratory will need to be introduced to screen incoming raw material- potatoes.

The basic GMP requirements should be introduced at this site as follows:

- Cleaning instructions
- Pesticide schedule testing
- Formal intake checks
- Hygiene audits
- Planned maintenance
- Traceability
- Calibration
- Pest control
- Glass control e.g. removing the glass if possible or covering or laminating of all glass on site
- Shelf life verification
- Temperature control recording
- Segregation of work wear
- Job descriptions
- Training (food hygiene, HACCP and work instruction)

Once these are in place HACCP systems can be developed and implemented. This company has the potential to achieve HACCP and EurepGAP Standards.

### **Friday – 03.10.06**

Field visit to Agroprodukt-Syne

The company is located in the new premises but its condition is not satisfactory according to the food safety standards. Intake of the raw materials is not separate from production and packing area. There are windows in all areas, which need to be protected and represent potential hazards. Equipment is new but it is not made from stainless steel and cannot be properly cleaned and disinfected. Toilets are in the same area as packing and they are not segregated from other areas. Company didn't have any written procedures for raw material receiving, processing or packing and same situation obtains with all important procedures.

Considering the current situation this company does not have the potential to achieve HACCP standards.

### **Saturday to Wednesday – 03.11.06 to 03.15.06**

Working on preparing plan of activities for the two processors and presentation for upcoming seminar for the members of AKA.

Worked at the office on preparing material for HACCP implementation plan for both clients, fulfilling GMP check list and prepare list of recommendation for each client.



## **Thursday - 03.16.06**

### **Meeting in KCBS Offices on FOOD SAFETY STANDARDS**

Attendees: Representatives of Associations, AKA, KAMP, KODAA, SHPUK, Anandrini, Perdrini, Flour Millers; EAR; Producers; and KCBS.

#### **Objectives:**

- To share with the members of AKA and other participants the Macedonia's experience in implementation of food safety standards GMPs, EurepGAP and HACCP.
- To identify potential microbiological, chemical and physical hazards that pose food safety challenges to food products; and to characterize the critical control points that can be monitored to effectively minimize, reduce or eliminate the hazards to a safety level.
- Work on the development of a basic EurepGAP and HACCP plan as an exercise to understand the steps and dynamics necessary to design and implement a EurepGAP and HACCP program

23 people attended the seminar. Originally planned for two hours, it was extended for another hour because of the number of questions asked. Participants of the seminar were interested in answers to the following questions:

- Why we have to implement EurepGAP or HACCP standards?
- What is the difference between EurepGAP and HACCP?
- Who is authorized to certify these standards?
- What is the cost of certification?
- How long is required for implementation?
- What is the benefit of implementation of food safety standards?
- Who is authorized for testing?

During the seminar all participants received copy from the presentation, EurepGAP checklist and GMP questionnaire.

# TASK FINDINGS AND RECOMMENDATIONS

## **HACCP implementation plans for two processing companies - See: Annex 1**

During visits to the three companies and the conversations with the owner-managers of the same companies, I came to a conclusion for the priority list of the improvements that need to be done:

### 1. Buildings and facilities

- The floors must be covered with tiles or with other easy-cleaning material;
- Receiving area has to be separated from the processing and packaging area;
- Dress rooms and toilets – separated for male and female;
- The doors must feet to the floor to prevent pest control;

### 2. Equipment

- Equipment that comes in contact wit food must be easy clean and diatomite and corrosion proof;
- Temperature and time recording for all critical processes that affects the food safety;
- Equipment must be free from “dead space” in or around the machinery where food and other debris can collect as a nest for insects and bacteria;

### 3. Pest control

- A pest control service must be hired;
- Preparing the documents for the chemicals that need to be used;
- The facility must be well maintained for pest prevent;

### 4. Implementing GMP (good manufacture practice)

The implementation plan includes 5 phases.

The first phase is organized HACCP training for the project staff. This phase also includes a seminar for all food processing industry and government officials in Kosovo with main topic: awareness of HACCP and EurepGAP. The Certification Company will organize the seminar and training for project staff.

The second phase is about GMP implementation. My role will be a monthly control of all whole implementation process (planning, implementation and checking). For that purpose my presence (six days per month) in Kosovo is required.

The third phase includes HACCP plan implementation. The remaining phases will involve audits by the Certification Company. From my experiences, I recommend a timeline of minimum eight months. The timeline depends from the Companies responsibilities.

All phases' activities, Certification Company's budget and my budget are included Annex 1.

## **Seminar on Food safety standards: HACCP and EUREPGAP**

At the training seminar, participants got a general introduction to:

- Food safety standards;
- Differences between HACCP and EurepGAP

- Advantages of food safety standards implementations;
- EU market requirements for food safety standards;
- GMP and HACCP implementation phases;

For the PowerPoint Presentation material, see Annex 2

# CONCLUSIONS AND RECOMMENDATIONS FOR FUTURE ACTIVITY

The successful implementation of a HACCP program requires consideration of the following points:

## The need for HACCP

To successfully implement HACCP in the food supply system, authorities responsible for food safety must first be aware of the need to move to a system such as HACCP and EurepGAP. Until this need is acknowledged, it is unlikely that a commitment at any level can be expected.

Motivations for adopting Food Safety Standards may include the need to:

- reduce the incidence of food borne disease
- ensure a safe food supply for the population
- promote (facilitate) trade in food products

## Responsibility for HACCP implementation

The main responsibility for the implementation of a HACCP-based approach to food safety lies with:

- Industries involved in all stages of the food chain
- Policy makers and planners who have the mandate to facilitate the adoption of HACCP systems
- Government authorities, including legislators, regulatory food control officials and health education bodies

In addition, the following groups also have an important contributory role in the successful introduction of HACCP systems:

- Academia, training and research institutes
- Nongovernmental organizations
- Consumers

## Role of those responsible for implementation of HACCP systems

Industries 'own' the HACCP systems, and it is vital that all the key players recognize this fact and modify their involvement accordingly. Specifically, the roles for industry and government are:

### Industry considerations

- The need to take ownership of the HACCP system
- The need to have a clear understanding of the principles of the HACCP system
- The need for commitment on the part of both management and staff towards the implementation and maintenance of the HACCP system
- The need to allocate the resources necessary for HACCP implementation
- The need to provide sufficient resources for training

- The need to share experiences with other sectors to ensure that adequate provision is made for food safety

#### Government considerations

- The need to provide leadership based on understanding and commitment
- The need to provide appropriate legislation and policies that promote and enhance the adoption and implementation of HACCP principles
- The need to define and establish nationally-acceptable levels of food safety risks
- The need to ensure that, when HACCP is implemented, regulatory food control officials are able to confirm that the system is correctly designed and conducted
- The need to provide sufficient resources to train regulatory food control officials
- The need to enforce any legislative requirements that have been adopted
- The need to develop appropriate strategies to implement and monitor the progress of HACCP
- The need to liaise with representatives from all sectors of the food chain, including consumers, on issues of food safety, appropriate control mechanisms and HACCP in general
- The need to liaise internationally on all aspects of HACCP for its harmonization and development

#### Development of implementation strategies

Once the decision has been made to implement HACCP, Kosovo ought to develop strategies, which reflect perceived needs. These strategies should be resource realistic and designed to ultimately achieve the desired objectives. They should be determined and agreed upon by the "key players" and the governmental agencies should work in conjunction with the industry sectors, wherever possible, to identify and promote the best option available for the development of the HACCP initiative. Where possible, the implementation strategies should facilitate a phased move towards HACCP to better manage the transition.

Factors to be taken into consideration when determining priorities should include epidemiological information on food borne diseases, high-risk foods or processes, and the economic importance of the sectors under consideration.

The plan for implementation of HACCP should be developed within the constraints of the available resources and achievable time-scales. The availability of training resources needs to be taken into consideration during the developmental stage. Care should be taken to ensure that costs are kept to a minimum and that a maximum benefit is obtained.

Implementation of the HACCP system should be integrated into Kosovo's food policies. Progress and status reports on the implementation of HACCP systems should be considered a permanent item for Kosovo food safety coordinating committees or equivalent organizational bodies.

Approaches and programs should be harmonized by the different regulatory agencies involved, should these exist.

Through consultation between regulatory and industry personnel, specific HACCP implementation strategies can be developed relevant to specific industries. Appropriate auditing programs can be developed in the same way.

A first priority when implementing the HACCP system in the food safety program should be to sensitize and raise the awareness of all people responsible in all sectors of the food industry and regulatory agencies. This should be done by using the skills of personnel who are knowledgeable in the HACCP system and who can respond effectively to the concerns expressed about proposed changes.

As far as possible, the integration of HACCP into food regulations should be delayed until the mechanisms have been set up to train food inspectors and food safety assurance personnel in industries.

Food industry associations, as well as regulatory agencies, should consider creating an advisory body for HACCP implementation in small and medium-size enterprises. It is likely that these enterprises will constitute the largest proportion of the food industry in any country. Their resources will be limited. Practical assistance in making the transition should aid the change process.

Inter country trade agreements can be a strong motivating force and should be used as a mechanism for the promotion of the HACCP system.

#### Time-scale

As the adoption of HACCP systems constitutes a major reform, the transition from an existing traditional food hygiene control system to a HACCP approach should be considered within a realistic time-scale, especially where a regulatory approach is taken.

The time-scale should be adapted to Kosovo's individual situation, taking into account the resources available and allowing enough time and opportunities for training.

Where regulations are enacted, sufficient time for training and implementation should be given before enforcement action is taken.

#### Resource assessment and capacity building

HACCP implementation allows for enforcement resources to be more effectively utilized.

However, in the initial stages, the implementation of the HACCP system requires additional resources encompassing qualified personnel, technical support facilities and financial inputs. Governmental agencies and the various sectors of the food chain are likely to have different needs. Training requirements, resource inputs (both human and material) and access to specific expertise from a variety of sources all need to be taken into consideration. These may be available from within the government, international organizations, industry sectors and sectors of the academia already familiar with HACCP principles. Both the private sector and government should contribute to mobilizing the necessary resources. Developing countries facing difficulties in mobilizing the necessary resources may have to seek assistance from donor agencies and international organizations.

#### Regulatory considerations

Any consideration of the necessity to adopt a regulatory approach to HACCP will depend upon the strategy chosen to secure food safety in the relevant industry sectors.

Legislative or regulatory objectives should concentrate on what is to be achieved and not how they should be achieved. The latter issue rests firmly in the domain of the food industry and their HACCP systems.

A voluntary HACCP approach can be effective in securing improvements in the safety of the food chain. In many cases, industry sectors have introduced the principles of HACCP without a regulatory requirement. In such voluntary programs, training initiatives on a pan-industry or a more targeted basis may prove the most effective mechanism for the successful implementation of HACCP.

There are numerous benefits with the implementation of HACCP as a regulatory tool for food safety control. Key benefits include:

- Being able to ensure that sufficient attention is given to the safety of the food supply for its population
- Common understanding as regards HACCP design and application
- Confidence in the safety of food products, thus promoting confidence in food trade and stability of food businesses
- Incorporation of HACCP and food safety issues into the design and construction of newly-established food industry facilities and equipment
- Focusing of food sector and regulatory resources and activities on HACCP-based interventions

Priority for regulatory attention should be directed at high-risk food or high-risk food processes based on epidemiological data, when available. The economic importance of the food process should also be considered but care must be exercised to ensure that the domestic and export markets are not differentiated.

The form that mandatory rules may take includes:

- Regulations which require the application of the principles of HACCP to high-risk or key food industries regulations which require the application of the principles of HACCP to all industries
- The application of mandatory requirements may vary from one food sector to another.

The use of regulatory, pre-determined Critical Control Points does not eliminate the requirement for industry to develop HACCP plans. If they are to be used, care must be taken to ensure that they are appropriate for the product and process, and that they do not preclude the use of more cost-effective critical control points or control measures.

# ANNEXES

Annex 1: HACCP implementation plans for two processing companies

Annex 2: Food Safety Seminar - Presentation